

Minimizing Effects of Disasters

The many disasters that have affected parts of Tennessee recently should serve as reminders of the need to be prepared for disaster at all times. Some of these have included the train derailment in West Knoxville that released a plume of sulfuric acid fumes and caused the evacuation of thousands of residents, and the past weekend's rash of severe thunderstorms and tornados. While we cannot prevent many of the disasters, we can take measures to minimize their impacts through proper siting and construction of buildings, maintenance of the surroundings, and by promptly taking shelter when warnings are issued.

Each of the four phases of disaster management plays a part in determining your risk and the consequences of disasters.

Mitigation refers to the steps you take to minimize the likelihood that you will be affected by a disaster. Examples include building, relocating or raising structures above the floodplain, [proper construction of homes](#) so they can survive severe weather, and properly anchoring mobile homes. Many of these measures can be accomplished at little or no additional cost at the time of original construction, but retrofits can be time consuming and costly. Other mitigation steps should be routine, such as maintaining fire-resistant zones around buildings and removing trees that pose a high risk of toppling onto the house.

Preparation involves the steps you take to survive disasters that cannot be avoided. Failure to prepare ahead of time results in panic and hardship. Among the most basic preparation steps are having a disaster plan rehearsed prior to the event, including knowing the best place to seek shelter from severe storms. Preparation also includes checking insurance coverages to make sure the home and valuable property are adequately covered.

Every family should have a well stocked disaster supplies kit that includes non-perishable food, water, and medication necessary for at least three days without outside assistance. An emergency source of heat is also necessary. If you have a generator, make sure you know how to properly connect it to prevent injuring or killing power company employees who are attempting to restore power to your community. When widespread disasters occur, such as the recent severe thunderstorms and tornados or winter storms, it can be several days before emergency workers are able to access many remote areas.

Response activities during and after disasters can result in additional tragedy if timely cleanup measures do not begin and if there are not adequate safety measures in place. Many disasters leave downed trees and power lines, plus many other dangers. All workers must be aware of the risks and wear personal protective equipment during the cleanup operations. Many injuries following disasters are associated with use of chainsaws and other power equipment. Numerous

cuts, abrasions, and strains also result from cleanup operations.

The outpouring of support and volunteer efforts from surrounding areas is always welcomed, but please contact the local Extension office, Red Cross, or other disaster agencies before making donations. Never donate clothing and other supplies unless requested by the local agencies, as handling and sorting such items requires large amounts of labor and space, and actually hampers response and recovery processes.

Recovery from disasters can take many months in some cases, and the emotional and financial trauma can last a lifetime. In addition to the processes of obtaining disaster assistance and rebuilding, it is important during this phase to evaluate the situation and make plans to mitigate the effects of future disasters.

There are a number of excellent resources to help you prepare for future disasters. Among the most complete resources are the [American Red Cross](http://www.redcross.org) (<http://www.redcross.org>), the [Federal Emergency Management Agency](http://www.fema.gov) (FEMA, <http://www.fema.gov>), and the [National Weather Service](http://www.nws.noaa.gov) (<http://www.nws.noaa.gov>). For information about disasters that affect Tennessee, visit the [Tennessee Emergency Management Agency](http://www.tnema.org) (TEMA, <http://www.tnema.org>). The [Extension Disaster Education Network](http://bioengr.ag.utk.edu/eden) (EDEN, <http://bioengr.ag.utk.edu/eden>) also provides access to university fact sheets and publications to help farmers and homeowners deal with disasters. Take the time to visit these sites to obtain free checklists and fact sheets.